Episode 50: Sitting in Limbo

Chris Dall: [00:00:00] Hi, everyone. Just a heads up that we have new Osterholm Update podcast and CIDRAP merchandise available on the MN alumni market website, including mugs, T-shirts and socks. You can find the link to that merchandise in the episode description. Now, here's this week's episode of the Osterholm Update. Hello and welcome to the Osterholm Update, covid-19, a weekly podcast on the covid-19 pandemic with Dr. Michael Osterholm. Dr. Osterholm is an internationally recognized medical detective and director of the Center for Infectious Disease Research and Policy, or CIDRAP, at the University of Minnesota. In this podcast, Dr. Osterholm will draw on more than 45 years of experience investigating infectious disease outbreaks to provide straight talk on the covid-19 pandemic. I'm Chris Dall, reporter for CIDRAP News, and I'm your host for these conversations. It's April 8th, and across the country, millions of Americans every day are getting their first or second doses of covid-19 vaccine, the weather is getting warmer, signs of spring are popping up everywhere and the light at the end of the tunnel is getting a little brighter every day. At the same time, a surge of infections fueled by the B117 variant is gathering steam in the US following a regional pattern that we've seen play out before in this pandemic. And the worsening global spike in infections is raising the specter of new and even more dangerous coronavirus variants popping up and prolonging the pandemic. So for many of those who have been fully vaccinated or between doses, it feels like, as Jimmy Cliff once sang, sitting in limbo. How much longer will I have to wear a mask? Is it safe to travel or go eat at a restaurant? What can I feel safe doing and when can I feel safe doing it? We'll address some of these questions on this episode of the Osterholm Update as we look at the current state of the pandemic in the United States and around the globe. We'll also answer a listener question on vaccine passports and highlight the latest act of kindness from one of our Osterholm Update listeners. But first, as always, we'll begin with Dr. Osterholm's opening comments and dedication.

Michael Osterholm: [00:02:11] Thank you, Chris, and welcome to all of you back to another episode of the podcast update. We are so pleased that you could be with us. And as I said each week, we so appreciate you spending your time with us. We know you have many other places to go and get your information. And we appreciate sharing with you this experience. For all of you who have submitted really wonderful questions and comments, very thoughtful ones, I regret that we can't address all of them each

week. And, you know, we could probably extend this to about 12 hours and we might start getting to most of them. And I know right now that I keep stretching the limits and the staff, keep saying don't talk so much, keep it a little bit less verbose. But that happens. And so we don't want to stretch it out any longer. But I want to just say right now, I'm really sorry that we can't address more of your comments with us. As Chris opened the podcast today, he noted that he felt somewhat like the Jimmy Cliff song Sitting in Limbo. And you're going to hear that from me throughout the duration of this podcast episode. There's a lot that I wish we knew more about, I wish we were further along in where we want to be. And the uncertainty of what that next step might look like is surely a challenge. And this virus obviously occupies the waking hours, and in some cases, I think the dreaming hours of many of us here at CIDRAP. And we surely think about these issues and we'll give you our best shot and what they mean. Today's dedication is really one that has, in a sense, been addressed in the past, but not in its entirety. We realize that there are many, many people where you might say the silent supporters of our vaccine programs in this country. The people who give people rides, the people who help others get online and find a vaccine appointment date, people who are there not to do the vaccination of itself, but make it possible with the vaccinations could occur. And so we want to dedicate this to all the vaccine-related team members, everyone. Whether it's just helping people in your neighborhood or friends and family get an appointment, making sure that people are able to get to the sites, reminding others it's your time to get your second dose. This podcast is dedicated to you. And of course, no opening would be complete without some mention of light. We sit here in April in Minnesota right now in the middle of April showers. And I'm looking forward to the greening that's occurring right now with regard to that. But even though we love our April showers, oh, we love our April and May sun even more. And so today I'm very happy to report in Minneapolis/St. Paul that there are 13 hours and 9 minutes and 17 seconds of sunlight today. We've increased 21 minutes since last week and we've actually increased 4 hours and 23 minutes since the vernal equinox on March 20th. And we have a new addition to our sunlight measure today. This is courtesy of Patrick and Donna from Denver. And thank you very much for your very thoughtful comment. They have shared with us that the sun angle in the sky right now in Minneapolis is that 54.44 degrees at noon compared to 25.81 degrees on December 23rd, 2020. This is a very interesting way to look at it. It's not just the fact that we're getting sunlight, but where is it coming from? And many of us here are very aware of that very rapid sunset that occurs in the wintertime when the sun is so low to the horizon and how it stays and stays and

stays in the summer when it's so high to the horizon. And thank you very much again to Patrick and Donna for this wonderful piece of information. As a reminder to all those in the Southern Hemisphere, we're shipping as much sunlight as we can and we look very forward to the reciprocity that will occur for us next December.

Chris Dall: [00:06:40] So let's talk about what's going on in the United States right now. Michigan on Monday reported more than 11,000 new infections, which is higher than the peak they saw in November. And it's expected this is primarily being driven by B117. So, Mike, we're seeing rising cases in many other states right now, but is Michigan an outlier in terms of how hard it's getting hit or are there going to be more Michigan's?

Michael Osterholm: [00:07:05] Chris, this is the 64 trillion dollar question, and let me just give you some context to that and then I'll answer the question with my best shot. First of all, let me just again celebrate what's happening with the vaccine program in the United States. My hat's off to all of those involved, particularly at the federal government level that are working so closely with the private sector manufacturers to get vaccine out, to get it distributed to those, as I pointed out earlier, who make it possible to get people vaccinated. And this in itself is a microcosm of the issue of the disease occurrence, i.e. a good news/bad news kind of situation. The good news is, it maybe great news, is that, in fact, as of Tuesday of this week, 32.6 percent of the entire US population had had at least one dose of vaccine and 19 percent were fully vaccinated. Now, you could look at that in the contrast and say 81 percent of the U.S. population has not had full vaccination yet. And in fact, almost 67.4 percent of the US population has not had at least one dose yet. Let's take a look at the age group that we have been most concerned about with regard to infection, serious illness and hospitalization and even potentially death. 56.6 percent of those who are 65 years of age and older have been vaccinated. 75.9 percent have received at least one dose. That still leaves about 13 million individuals 65 years of age and older who have not yet been vaccinated and B117 is on top of us right now. So this is a challenge. We've now seen this number increase by about five and a half percent in the last 10 days. That's great in terms of the one dose issue. But just reminding ourselves that we still have got a ways to go to protect this population. Now, in terms of the issues around vaccine, and will that be enough together with previous infections, to protect us from a potential fourth surge, as it's now being called by so many? And the answer is absolutely it will not. It will not. I know I have colleagues and friends who continue to say that. The proof is already here.

This isn't something that we have to debate. It's happening. Let me just, before I get into specific examples of why I say it's already happening, let me just give a very quick update on where we are nationwide. Cases in the US have risen by about 20 percent over the last 14 days. Clearly, we're no longer just in that trough, we're going up. While deaths have decreased by 24 percent over the past 14 days, we'll come back to that because that is a lagging indicator that we've talked about many times. Hospitalizations have increased about 2 percent over the past 14 days. Nationwide, we're seeing a divergence in the rate of hospitalizations by age. As I will point out, we have seen increases in 20 to 29 year old age groups and we've also seen increases in 40 to 49 year old age groups. If you look at the states right now, including the District of Columbia, where cases are higher and staying high, we're at 28. States where cases are higher, but going down one, South Carolina. States where cases are lower, but going up five. And states where cases are lower and staying low, 17. Now, if you look at that, the states where cases are lower and going up, five. States are lower, staying low, 17. That's twenty two states. You can say, wait a minute, it's kind of, you know, half the country is low, half the country's high. How can you make any sense of this? And what it is it's the tale of two cities. And this is something I've been talking about on this podcast for months. Remember, very briefly, after last April when we saw kind of the house on fire in New York City and parts of the northeast, we saw Chicago, Detroit, Atlanta, New Orleans, parts of Southern California really light up, some in the northwestern part of the country. We then emerged into what I would call the covid-19 regional pattern, where if you look in the upper Midwest around Memorial Day, we saw case numbers go up, surely not dramatically like we did later. But that was kind of that moment when you might say the back porch was on fire, not the house on fire. But then as those cases came down in mid-June to late June, suddenly the states from Southern California all the way to Georgia and South Carolina lit up. And that's when we hit the 70,000 cases a day, far, far exceeding even the 32,000 cases a day in April. And we saw limited activity in the Northeast and the upper Midwest at that time. Cases dropped in September to about 26,000. And then, lo and behold, the upper Midwest again led the way in October into early November such that by November 20th we hit 200,000 cases a day in this country. And a number that was unimaginable back in April. And it was driven by the upper Midwest. At one time North Dakota and South Dakota had the highest rates of disease incidence in the world. Well, those numbers dropped. By December 1st into that first week of December, we saw about 160,000 cases a day. And then guess what? The Southern states lit up again. From California all the way to Georgia, South Carolina,

with the exception, interestingly enough, of New Mexico. We saw this major increase in cases and we hit 300,000 cases a day on January 6th. And then the cases dropped precipitously. This is that big drop that everyone assumes we had happen because of what we did in terms of mitigation. As you know, I don't believe that's true. I think that we surely have had an impact on the height of these curves, but it goes up and comes down Mother Nature is doing and we have to be humble enough to understand that. Why do I say that? Because I feel like we're in a deja vu all over again moment. The upper Midwest and the Northeast are lighting up and I think it's going to be just a matter of time before we see the rest of the country go through that same pattern. This time we're dealing with a different virus and it's a virus that's a much, much more dangerous virus than we've had already. And it's hard for most people to even imagine that because what we had before was really, really bad. And so now we're in this kind of tug of war between more people getting vaccinated every day, people already having been infected having immunity such that we are having a smaller and smaller proportion of our population who are vulnerable to this virus. But I believe in most areas of the country, we are still seeing upwards of 50 percent of the population still susceptible to this virus, even with what we've got with vaccine campaigns going on. Let me just illustrate that point in what's happening. Michigan really has become, I think, the first shot across the bow, it's not going to be the last. If you look at what's happening, their cases have continued to rise quickly in the state with a seven day average of 6,720 cases a day. They estimate that about 70 percent of these cases are due to B117. That virus, which is 50 to 100 percent more transmissible, 60 to 70 percent more likely to cause severe disease, that's the virus we're dealing with. Today, the Michigan numbers have continued to climb prior to what we've been seeing in Michigan over the course of the last week. Their peak activity occurred on December 3rd at 8,291. And we're back there again. That's what we're seeing. On Tuesday, they had a much higher number in the 10000 range, which, of course, was the two day total from the weekend. But the point is, is that they are seeing this very substantial growth. In terms of outbreaks reported in the state, they continue to show substantial activity in educational settings. Of the 287 outbreaks reported in the past week, 81 were in schools, the highest number for all the listed settings. So amongst all the settings, school is still the predominant place for an outbreak. An additional 29 outbreaks were found in child care youth programs. As of this time, the state has 704 ongoing outbreaks and 220 are in K through 12 schools. Hospitalizations have increased by 108 percent over the past 14 days. The state is reporting now more than 3,000 hospitalizations. One month ago now,

there were 874 hospitalized people. Today, again, we're at 3,000. The Michigan Health and Hospital Association reports that among those aged 30 to 39, there were 26 daily admissions based on the seven day average during the fall. So remember that, 30 to 39 there were 26 daily admissions during the seven day period when they had the fall peak. Today there were 43 admissions in the same age bracket. So you can see they've already surpassed in these younger ages the case numbers that are occurring in these younger age brackets. In terms of the 40 to 49 year old age bracket, we're seeing a similair rise. 58 patients being admitted daily compared to 33 during the big autumn surge that they had. For those 60 and older, the good news is hospitalizations have declined sharply as vaccinations have risen. So what we're really up against right now is what is happening in these younger age populations in terms of cases and disease severity and how much increased severity will occur among more enhanced transmission that will offset what gains we've made with vaccination in the older populations. In vaccinations, this is where some of my critics have said, you know, you're blowing steam, vaccines are going to take care of this. Michigan right now, 35.2 percent of their population has had at least one dose. That compares to my home state here in Minnesota, which is doing a great job of 32 percent. 21.5 percent of the Michigan population are fully vaccinated. That compares to our 21 percent here in Minnesota. Don't tell me that previous infections as the Detroit area had seen two waves of infection that were quite substantial over the course of last April and last fall, as well as now having a remarkably high level of vaccination and look what they're seeing as we speak. So if you need to have even one counterpoint to say we're not going to be saved from this surge by vaccination, please understand, if we had three more months to get people vaccinated, we can have a very different picture, but we don't. It's like the old line from Secretary of Defense Donald Rumsfeld, who once said, "You don't get to go to war with what you want, you go to war with what you have." And right now, this is all we have. Now, if you look at the rest of the country, the CDC variant update, as reported as of April 5th, B117 now accounts for 15,511 cases in 52 different jurisdictions. That compares to the B1351, the variant that we had seen as a significant one in South Africa, 374 cases in 33 jurisdictions. And P1, the one that was first identified in South America there was two 289 cases in 25 jurisdictions. So if you look at 15,500 versus 1350 or almost 300, B117 still is the predominant virus that we have to deal with. Let me just comment briefly on the regional trends. These are 14 day changes. And if you look at the states that have had at least 50 new cases per hundred thousand population in the past week, you've already commented on Michigan.

Minnesota is up, cases are up 35 percent, hospitalizations 37 percent. Our positivity rate is now at 6.8 percent. We are not far behind what's been happening in Michigan. Let me go through the list just quickly. Nebraska, Illinois, North Dakota, Ohio, Iowa, all have more than 50 new cases per hundred thousand. And they're all seeing increases between 24 and 82 percent in new cases. If you look at two states in the Midwest that have just below the 50 new cases per one hundred thousand, but they're increasing substantially, Indiana's up 26 percent, Wisconsin is up 24 percent. Let me move to the east, northeast. That area that I said was also affected outside of the upper Midwest. If I look at the daily average above 50 new cases per hundred thousand residents in the past week, so they have to have at least 50 new cases per hundred thousand residents. New Jersey's up six percent. New York as a state is up 34, Rhode Island up 8. You'll see Pennsylvania up 44, Connecticut 25. I could go down the list. All of these are up substantially from where they were just one week ago. If you look at this right now, of the 27 states in the country that have had a daily average of 50 new cases per hundred thousand residents for the past week have seen these increases, 21 of these 27 states are in this area. This really is supporting the point I was making about the same pattern that we see. So if you don't see cases in California, you're not seeing big increases in Texas, you're not seeing big increases in these states in the south, wait. Just wait. And that, I think, is the message we have to get across. What we're doing is still fighting this virus in every state. And so how we deal with what's happening with openings, how we deal with how we get vaccine out, please understand that Michigan and Minnesota and the states that I just mentioned are not somehow outliers. This is what the country will see. And we've been through enough times that I would hope my colleagues would see that. And again, if you need any evidence that, in fact, vaccine in and of itself will not hold the surge down, just look at Michigan. And we're seeing the same thing in Minnesota right now. So hopefully this puts some exclamation point to what we're up against. This fourth surge is real. It is going to happen. Vaccines are going to have a very positive impact on reducing the number of cases in the older population. But they're not going to stop them. And we're going to continue to see this expansion of illnesses, some very serious hospitalizations, ICU care needs and even deaths in this much younger population. And kids are playing a very important role in the epidemiology of this transmission now. They are not getting infected any more frequently than adults, but they are getting infected what appears to be at the same rate now, which was different from before, and they are transmitting the virus. Those are the data. And we have to understand that's what we're up against right now. One additional

point that I'd like to add about understanding cases in the United States is what's happening with testing. We are hearing from many, many locations that testing has dropped substantially because of the need to pull people out of the testing environments into the vaccination environments. And I don't know how much of testing decreases right now can be accounted to that or how much is just less activity out there. But even our own state of Minnesota, where we see the increasing number of cases occurring, when we were testing back during our fall surge in November, on November 27th we were testing over 800 people per 10,000 residents a day. Today, that's down to 374 per 10,000 residents per day. It's less than half. And one of the challenges we have is that trying to understand the epidemiology of this disease, the testing issue could be a significant factor in case counts. So it's also one of the areas, I think, that we need to look at carefully of how do we measure what's going on? And I think ultimately hospitalizations and deaths are going to get to become a very, very key piece of what we're looking at.

Chris Dall: [00:24:50] The uptick in US cases appears to be bringing more people around the idea of delaying the second dose of the vaccine in order to get first doses into more arms, an idea that you've been promoting for months now. Mike, do you sense some momentum on this issue? And would delaying second doses going forward have any impact on this fourth surge?

Michael Osterholm: [00:25:11] Anyone who's been listening to this podcast for the past several months knows that this has been a particularly difficult issue for me, because every day that we don't act on this, we lose another day of providing people with potentially a lifesaving vaccine. And all before, of course we're talking about this surge, occurs with B117. Just to refresh everyone's memory, you know, originally in early February, our group put forward a paper with a number of other notable public health scientists and researchers indicating that the data were compelling that a single dose of either Pfizer or Moderna vaccines provided at least 80 percent or more protection well into days, weeks and months after the first dose. And that right now, what would be really important, is to get as many first doses into people as possible, anticipating this B117 surge. And it's one that is, you know by listening to this, that I've been anticipating for several months. We didn't do that. And today the data are compelling. The CDC itself has put out an article in the past 10 days noting their study found 80 percent protection plus for those who had a single dose of Pfizer vaccine after several weeks,

90 percent plus for those that had two doses. Now, if you want to protect the most number of people, you could look at this very simple math and just come to your own conclusions. It doesn't take any rocket science to do this, even I can figure it out. That is, if I vaccinate one person with two doses and get 90 percent protection, the second person doesn't get a vaccine then because there's none there. The average protection is 90 plus zero divided by two, forty five percent. On the other hand, if I give each person one dose and it's 80 percent, that's 80 percent protection for the two of them. Now, you don't have to be a rocket scientist to understand that that's probably what you ought to consider doing. And when you look at what's been done in England and the remarkable outcome they've had a single dose, you see the increasing number of publications coming out showing modeling that supports this very much, including one that even looked at the potential for variant development, which had been a criticism saying, "Well, there won't be enough antibody there after one dose and these variants will start to develop." The Brits found none of that. None of that. And this most recent modeling paper didn't either. And so I haven't given up yet. We have literally lost five plus weeks, if not more, of where we could have been vaccinating 1.3 to 1.6 million additional people a day. Remember, when we hear these numbers too, about how many people are being vaccinated, they're actually misleading. Not because anybody is attempting to mislead you, but think about the fact that most of the vaccine being delivered today is the two dose Moderna or Pfizer vaccines. It's not J&J. They have not yet been able to deliver on large quantities of vaccine. Every time you hear someone saying we've just vaccinated three million people today, it's really 1.5 million people who got dose one, and 1.5 million people who got dose two. It's not new people who got that last 1.5 million doses. So we're still going to be far, far short of trying to deal with this B117 surge. And again, look at what's happening in Michigan and Minnesota. I wish we had a lot more vaccine. So I still haven't given up on this issue. I do think the southern states that I just laid out that are vulnerable to this, that are going to be coming over the weeks ahead, we could still do that. And remember, we're not asking anybody not to get a second dose. We're saying merely postpone it. So when you sign up for your second appointment, you don't sign up for it 3 weeks later or 4 weeks later, you sign up for it 10 weeks later or 12 weeks later, without any reason to worry that your protection is going to wane substantially during that time. But imagine getting that, twice as many people vaccinated. So I think at this point, the number of people who have come forward publicly has been remarkable. Some really esteemed colleagues have come forward and said, "We need to do that." The US government's continued response is, via the

media, "Nope, we're not going to." And I just you know, I talk to these, these are my colleagues. I think the world of them, they're dear friends. But the fact that the US government has not done a formal review of this, I think is really their darkest hour in terms of what they've done with this program. So as much as they've done so much, so much, good. And they have really managed the vaccine stocks and getting them out in such a wonderful way. But just remember, only 19 percent of individuals in this country are fully vaccinated at this point. Only 32.6 percent have even had a single dose. So at this point, we need so much to expand on protecting these 20, 30, 40 year olds. I wish I could protect kids, we don't have a vaccine for that. And so am I hopeful? I don't know. This is not a rational situation from my perspective. Why would you not even look at this when other countries in the world have and come up with very different conclusions and the data surely support doing it?

Chris Dall: [00:30:47] Mike, can you give our listeners a quick update on the global situation?

Michael Osterholm: [00:30:52] Well, I come back to just the straightforward, honest assessment that this is the darkest hour of our pandemic. As much as people don't want to hear that, as much as they think this is an exaggeration, let me just give you the numbers. This past week, we reported over 4 million new cases to the World Health Organization with an increase of over 200,000 plus cases. If you look at where we've been, we were at 5 million cases reported a week at the surge in early January and then by early February that number dropped down to 2.4 million cases reported per week. Here we are now at 4 million cases and rising. Within the next two to three weeks, going to surpass the 5 million cases reported per week mark. We're seeing major upticks in cases around the world, and it really just bears the fact that in this case, we believe that the variants are playing a very, very key role. If you look at Europe, France continues to see high levels of cases and rising hospitalizations prompted another 4 week national lockdown, closing schools, non-essential businesses and banning nonessential travel. While cases are declining in Hungary, Poland and Estonia, each of these still remain in the top five worldwide for the number of reported cases per capita. As you know, Germany is also facing pressure to implement more nationwide restrictions in response to growing cases and severely challenged hospital care delivery situations. Moving to South America, Brazil is still facing major challenges related to the high levels of covid cases and the struggling health care system. They're seven day average for new daily

deaths in the country recently exceeded 3000. That would surpass the US record high of 3285 cases, but remember, Brazil only has two thirds the population we have. So imagine what that means. P1, the variant P1 is still being considered the major variant responsible for much of Brazil's recent surge. And it's surely, right now the ICU capacity there, has been severely challenged with major oxygen supply shortages. Chile has implemented a nationwide lockdown in response to record high cases and immense pressure on the health care system. They have one of the highest vaccination rates in the world, administering 58 doses per hundred people to this point. 37 percent of the population has had one dose, 21 percent are fully vaccinated, basically exceeds our levels. Now, they have been using, however, the Sinovac vaccine from China and some have said, "Well, that vaccines are not as good." When you look at what we're using right now for Johnson and Johnson and you look at the WHO having just certified Sinovac as a vaccine to be used by countries, I think it's very important that we look at this carefully in terms of the vaccine, but I don't think there's any evidence right now that somehow there's been a big challenge to vaccine protection that has resulted in this situation. Other parts of the world, Asia and the Middle East, 11 countries in Asia and the Middle East are now reporting peak case numbers. India this week reported 115,000 in a single day, the highest daily total to date. Cases are continuing to increase substantially in Iran and Turkey, with major upticks in cases and increase in deaths. Finally closer to home, Canada. Canada has experienced a rise in cases with variants playing a role, a major role. Cases and hospitalizations are increasing in Ontario, where more than 2000 B117 cases have been detected just in the last several weeks. It's leading to many more restrictions in the country. More restrictions have also been implemented in Quebec, which also is reporting an increase in cases and hospitalizations. And now British Columbia is seeing a rise in both B117 and P1 cases, something we're watching very, very carefully. B117 still makes up the majority of the variants of concern identified in British Columbia. But the province's reportedly detected 480 cases of P1, with many of the cases tied to an outbreak at a ski resort in Whistler. In addition, the NHL Vancouver Canucks are suspected to have been impacted by the P1 variant, with more than half the team being isolated or quarantined due to covid protocols. The team hasn't played a game in two weeks, and reports indicate that a number of the players and staff tested positive, while some are considered very ill. So I think you can see that this is just continuing out there. And it really points out why we say this is the darkest hour of the pandemic. If you add these case numbers up, it's

worse than we've seen any time in the past year. And so we're up against that as a country in terms of the pressure of cases occurring throughout the rest of the world.

Chris Dall: [00:36:06] Earlier this week, members of the Lancet Covid-19 Commission Task Force on Public Health wrote an article arguing that the global rollout of vaccines was not enough at the moment to control variants of concern and that a strategy of maximum suppression was needed. Mike, do you agree? And what exactly would a strategy of maximum suppression look like?

Michael Osterholm: [00:36:27] This has been a point that I've covered in previous podcasts and one that I don't think I can yell loud enough or, you know, stand tall enough to get people to understand just how critical this piece is. First of all, let's just take the immediate situation. As of this past week, more than 673 million doses of vaccine have been delivered in 155 different countries. Now, that sounds like great news, but that's just 4.4 percent of the global population. And if you look at where these vaccines have been delivered, 10 countries account for about 80 percent of the vaccine use. 30 countries have not even seen a drop of vaccine. There have been marked regional disparities in the number of countries who have already received or administered any doses, including Africa and Central Asia. Why do I raise this? Because, again, this is not just a humanitarian issue, that it is. Covax was set up to try to help respond to that. And yet, as an organization, its goal is, at best, to get potentially 20 percent of low and middle income country residents a dose of vaccine or two. And now we recognize the challenge of trying to address the variant development, when, in fact, we have potentially billions of people who are still at risk of getting infected with this virus. And now Mother Nature's opportunity here through evolution, people getting infected, viruses mutating to produce new variants is kind of mind boggling. So I worry very, very much about our vaccine security for the world, specifically the high income countries, and of course the low income countries, if we're seeing these variants continue to be spit out with widespread, unfettered transmission in low and middle income countries. What does that mean for us? And what does it mean for our vaccines? I mean, look at where P1 came from, it came from South America. Look where we see B1351 coming, it came from South Africa. Now grant you, B117 came from the United Kingdom, it looks like. But from a standpoint of development of these variants, it's going to be the low and middle income countries. So I agree wholeheartedly with the thrust of that statement about why we have to rethink how we're

going to try to protect these countries. Incremental response won't make it. We're in a war with this virus. We need to get on a war footing. What's it going to take to manufacture enough vaccines and support the infrastructure to get most of the world vaccinated in the shortest period of time as possible? And then to be able to keep up with any new vaccines that need to come out as a response to what's happening with variants? I don't see that grand plan. I don't see it coming from anybody. And I think that that's the challenge we have right now. We will be penny wise and pound foolish if we don't do everything we can to deal with the transmission of covid-19 virus in the low and middle income countries.

Chris Dall: [00:39:51] So as I noted in the introduction, there are a lot of questions right now about what we can feel safe doing in this partially vaccinated world, and that's the focus of our listener question this week. This question actually came to us in late January when vaccines were still in short supply, but I think it applies to the current moment. Garda in western New York wrote, "There's so much talk about the vaccine shortage. This fosters an expectation that when vaccinated, we can have our lives back, yet there is no clear assurance. Am I free after my second vaccination or am I free after everyone's vaccination? Also, is there info on a vaccine passport for travel?" So, Mike, you used an analogy this past weekend on Meet the Press to explain how people should view being vaccinated in this current moment. Does that analogy help answer the first part of this question?

Michael Osterholm: [00:40:42] Yes, I think it does. What we're really talking about here is not inconsistent between saying once you're vaccinated, your life will begin to open up in a new way. At the same time, you still want to be guarded and protect yourself. The analogy I used was imagine you have a fireproof suit, something that is there to protect you should you come in contact with fire. People who do fire suppression and respond to forest fires, fireperson's etc., all deal with this. But you know what? Those suits are not one hundred percent. There are places that you can still get burnt in your face, but they're really good. They're really good. Well, vaccines are like that, they're ninety/ninety five percent effective. And that's really, really good. But do you want to go walking in the middle of a hot, hot wildfire to test it out, to see how well that ninety, ninety five percent protection works? I don't think so. And in a sense, what we're talking about, when there's widespread virus transmission in the community, it doesn't mean that your vaccine is not important. It's potentially a real lifesaver for many, but it doesn't

mean it will protect everyone all the time. So what CDC was saying, for example, in travel this past week was, yeah, now you can be free to go travel, but if you don't have to, if it's non-essential, why don't you wait right now because all that fire is out there. And why put yourself in harm's way? Now if it's essential, you have to go, something's happened, you got a lot of protection, go for it. So I think that what we're trying to get across to people is as we get more and more people vaccinated or unfortunately infected and have protection from natural immunity, that level of virus transmission in the community will continue to drop. And now you may be walking in a one foot high grass fire where you will be protected in that suit completely as opposed to a raging out-of-control forest fire where that suit may not protect you. That's our vaccines, and I look forward to the day when we have a six inch high grass fire and I'll feel really good about my suit. But until then, I'm going to make every effort to still limit my potential for transmission. You will not get me into a restaurant right now. You won't. I think this is a huge challenge. You know, there is a number of things like that I won't go to right now, even though, you know, I've got my vaccine just because I don't want to test that vaccine knowingly. And so hopefully this will give people a sense that time is coming where you will have more and more opportunities to be in the public setting feeling really, really good about it when the virus activity level drops and your vaccine is on board.

Chris Dall: [00:43:48] Ok, into the second part of Gardas question vaccine passports. There's been a lot of discussion around this idea. What are your thoughts on vaccine passports?

Michael Osterholm: [00:43:57] Well, let me just say at the outset, they're going to happen. They are going to happen. Number two, we don't have a clue yet necessarily how to do it and the challenges. When we think about passports, we're thinking about a very legitimate need to say we want like people to be able to be together. If I do go into a restaurant or go to a concert or I have kids in schools or I have any number of business related activities, can I be in the same room as someone who is also vaccinated, fully vaccinated, as am I, and feel really confident about being there? If I'm in a restaurant where I know that everyone in there has a passport, will I feel better about going to that place or a concert or whatever? I think the answer is yes. And people want that. So they're going to happen. It's going to happen with transportation. You know, I willingly gave up my eyeball scan and my fingerprints to Clear so I could

get on and off planes quickly. I haven't used it for a while, but, you know, it's there. And so people are going to want to do this. The problem we have are several fold. One is, what does immunity mean? What is a correlate of protection? Meaning, is it a certain level of some kind of antibody? What test do you use to show that? Is it, 'I had my vaccine'? We know we have vaccine failures, but maybe just being vaccinated with two doses of X, how do I make sure that that's been proven, that that's me? And so one of the challenges we're going to have is just how do we define what protection is? And know that this is solid evidence, this is inferred evidence, this is no evidence? What does that mean? So that's number one. Number two is how do you do it? Right now, Israel is doing it with paper largely. Will it be paper? Will it be electronic? You know, the challenge I think we're going to have is then how does that fit into the data that we so cherish about our health care system? Why have the electronic medical record been such a challenge for so long? Because of people's concerns about privacy and how data might be shipped between a private company and a government agency or something like that. Those are all challenges. And then how often do you have to keep this information up? Let's say I do achieve a certain antibody level from having previously been infected or I have evidence of two vaccines, when do I need to update that? Will I need to update that? Will it wane? And so at this point, just stay tuned. There's going to be a lot more coming. The Biden administration has made it clear that they will help provide guidance for electronic passports, but they're not going to do them. This is going to be an effort that is still really, I think, going to be a challenge. In the March 31st issue of the New England Journal of Medicine, Mark Hall and David Stuttert, published a very thoughtful paper, "Vaccine Passport" Certification- Policy and Ethical Considerations. And they lay out in really very clear terms the kind of challenges that we have about the issue of electronic or paper passports for any kind of covid-19 certification. Whether or not there will be ethical issues because some people will have access to these certificates and others won't, just because of availability for vaccine or financial considerations. They list a number of different issues here. And I think that one of the key issues is also distinguishing a passport from a mandate. In other words, no one has to get a passport. But if you want one, then by obtaining that, that may give you a privilege, grant you, to get into certain venues, to use certain transportation modes, etcetera. And to me, I don't find that as a problem, if, in fact, it means some people aren't excluded because they can't afford it, they can't get access to it. The confidentiality is going to be huge. And we're going to see more and more discussions about that, how to do it. If this were easy, it would have been done already in terms of

electronic medical records. Does information get given to someone else? I'm aware of one particular group that was working with homeless people in a community where because they were bouncing from emergency room to emergency room, they got them an electronic record note that allowed them when they came into any emergency room for the medical care team to quickly pull up the records and understand what was going on. Well, there was a change in administration and all those data were given to ICE. And when that happened, it killed the program just like that. So we're going to have to look at the kind of social/political issues that come up with this. But I'm confident, I'm confident that this can happen. All I can say is stay tuned. There is currently a network of tech companies called the Covid-19 Credentials Initiative that is trying to set a standard for vaccine certificates. While the Commons Project, a non-profit, is working with the World Economic Forum on a digital health pass that's been going through trials. And some of you may be aware of this right now, there's actually one being used in the state of New York as an experiment at this point. So I will keep you posted as we learn more here about what's happening with these passports, how they might work. Understanding Israel right now has, what they call, a green pass being used. What does that mean? And stay tuned. But right now, there's nothing imminent, I think, on a nationwide basis for a passport.

Chris Dall: [00:50:04] Now to our latest act of kindness, this comes from a listener email we received, and while it wasn't labeled as an act of kindness, it certainly struck us as one. Mike, can you share with the audience?

Michael Osterholm: [00:50:17] Well, I think this act of kindness really also is linked closely to the earlier listener question about what can I do or can't do? This act of kindness is one that I hope spreads more than any weed could ever do. It's one that we need to see it around the world as the opportunity presents itself. This comes from Carolyn. Carolyn is a veterinarian and obviously a very, very special person. She wrote. "Hi, Team Osterholm/CIDRAP, I thought you'd enjoy hearing about this. My niche as a veterinarian is to provide hospice and home euthanasia for companion animals. As you can imagine, doing this work in a loving yet safe manner has been a challenge this past year. A few days ago, I had just helped a woman say goodbye to her beloved cat. During our brief encounter, I had learned that all her loved ones had moved far away and it had been just her and the cats for some time. As we parted ways, she patted me awkwardly on the shoulder and said, 'I guess we can't hug'. It broke my heart not to give

this lovely person what used to be such a routine gesture of comfort. But then as I opened my car door, I shouted back to her. 'Wait a minute, are you vaccinated?' She said she was. So I said, 'Me too. Let's hug.' And we embraced wholeheartedly in the street next to my car. Since being vaccinated, I haven't changed my behavior at all, I've been wearing PPE and practicing social distancing all along. I felt so incredibly grateful to be able to make a brief exception for someone who truly needed it. Vaccines are miraculous. I look forward to the podcast every week. Thanks for what you are doing. Carolyn." Carolyn, you're a miracle. You're an example. I hope everyone finds that like individual out there who is also vaccinated, and as you feel appropriate to hug and as the other person does too, please do it. Please touch. Please share that relationship that unfortunately we've almost thrown away, as we discarded the horse and buggy. This is something we can't do, and this vaccine empowers us to do that. I am so grateful that you sent this beautiful piece and it touched me immensely because unfortunately, I, too, have used the services of veterinarians such as yourself for my beloved dogs. I'll never forget the kindness, the professionalism, the support that these very, very special veterinarians provided at a time of great pain. And so for you to be able to do this just is a classic example of what we're trying to promote here. How we can get through this pandemic using every opportunity we have on our side to make it a better world. And you did. Thank you so much, Carolyn.

Chris Dall: [00:53:35] Your closing thoughts today, Mike?

Michael Osterholm: [00:53:38] Well, thank you again for staying with us through this podcast this far. As we talked about at the very beginning, we're in limbo. We are watching cases continue to unfold in this country. And I am afraid that people are convinced that what is about to happen is not going to happen. And we're living our lives as such. And I keep saying this week after week after week, and I can't say it with any more conviction and belief that please, please do not let yourself be the person who dies three days before they were scheduled to get their covid vaccine. We can do this, we can get through. This surge is not going to be pretty, but it does not have to consume any of us if we just hold out a little bit longer. This virus can't get through brick walls. It can't leap tall buildings in a single bound. It won't seek you out when you're protecting yourself. And that's what we have to do to get through. And we have to help other people understand that. The next thing I just wanted to comment on was, I can't tell you the feedback that I got this past week from the letter that I read last week from

Teresa Thayer Snyder. I've had more requests for this letter to be sent to someone, even though it was available on the podcast site. And the reason was, is that not only did it touch a nerve about who our kids are, but it said so much about who we are as parents, who we are as the guardians of our children, who we are as the ones bringing up the next generation. And as much as we want our teachers and our educational communities to be skilled professionals, we want them to do the one thing they do best of all, that is, love our kids. They love them. And I think that this letter really, really hit that note in a time of a pandemic, how do we most effectively protect and support our kids. So I just want to again thank Teresa for the opportunity to use this letter. You know, from my last week's discussion, she's something. She's really something. And I have such respect and admiration for her. Which leaves me with my last final quote. Today, I'm going to leave you with something that I've used before, the golden oldie, a treasure chest comes back again. On August 13th, which was our first live episode recorded between episodes 19 and 20, I closed the program with this final quote from Edward Everett Hale. As you may recall, for those of you who listen to this podcast, Edward Everett Hale was an American author, historian, Unitarian minister, best known for his writing, such as The Man Without a Country. He was born in 1822, died in 1909. And this quote that I use from him is as follows: "I am only one, but still I am one. I cannot do everything, but still I can do something. And because I cannot do everything, I will not refuse to do something that I can do." That's us right now. That's everyone on this podcast. That's our families, that's the people we work with. This is the people we love. We can do things right now to protect ourselves, to get through this next surge. One, is we don't deny its existence. We anticipate it. Two, we continue to understand that much brighter days are ahead. And three, we remain committed to getting through this pandemic, in such a way that we do it with class, we do it with goodness, kindness and patience. This is what it's all about. You don't have to do everything, but you can still do something. And just as you heard a couple of minutes ago, Carolyn did just that. She didn't do everything. But you know what? She did something really, really special. So I leave you with that sense that now is our time. Now is our time to actually get through this last few weeks and now is our time to help others get through this pandemic as much as we're helping ourselves. So please be kind. Be patient. Make certain that you take care of yourself, be good to yourself. And thank you so much for spending time with us again. Our entire podcast family here at CIDRAP cannot fully explain to you how much we appreciate your input, your kindness, your thoughts. They

mean everything to us. We're so, so fortunate to be a part of your lives and to have you be part of ours. Thank you. Be kind.

Chris Dall: [00:58:46] Thanks for listening to this week's episode of the Osterholm Update. If you're enjoying the podcast, please subscribe, rate and review and be sure to keep up with the latest covid-19 news by visiting our website CIDRAP.umn.edu. The Osterholm Update is produced by Maya Peters, Cory Anderson and Angela Ulrich.